

220 CMR DEPARTMENT OF PUBLIC UTILITIES

220 CMR 20.00: ~~-~~STEAM DISTRIBUTION COMPANIES

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20.01: Purpose and Scope

- (1) 220 CMR 20.00 prescribes minimum safety requirements for the design, fabrication, installation, inspection, testing, operation, and maintenance of Main and Service Piping by Steam Distribution Companies.
- (2) 220 CMR 20.00 applies to every Steam Distribution Company operating a plant, equipment or facilities for the manufacture, production, transmission, furnishing or distribution of steam to or for the public for compensation within the Commonwealth.
- (3) Every Steam Distribution Company shall comply with M.G.L. c. 164B, M.G.L. c. 25, § 18A, and 220 CMR 20.00.

~~(3)~~(4) 220 CMR 20.00 does not apply to:

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- (a) Plant, equipment or facilities used for or in connection with the generation or production of steam or not directly associated with the distribution of steam; or
- (b) the design, fabrication, and installation of piping downstream of the ~~customer's~~customer's property line; ~~and.~~

~~(4)(5)~~ any~~Any~~ entity operating a steam distribution system within the Commonwealth that does not meet the definition of a Steam Distribution Company ~~if~~must file with the entity files~~Department~~ a detailed inspection and maintenance plan, in accordance with the Department's specifications and M.G.L. c. 164B, § 4. The ~~first such inspection and maintenance plan shall~~must be due no later than filed every two years on January 1st~~next following August 17, 2012. Subsequent inspection and maintenance plans shall be due no later than, beginning with~~ January 1st~~on a biennial basis.~~ 1, 2022.

~~(5)(1) Every Steam Distribution Company shall comply with M.G.L. c. 164B, M.G.L. c. 25, § 18A, and 220 CMR 20.00.~~

20.02: Definitions

For the purposes of 220 CMR 20.00, the ~~terms set forth in 220 CMR 20.02 shall be defined as follows~~following definitions apply:

Accessible, ~~with reference to Expansion Joints or welds, means capable.~~ Capable of being visually inspected (*i.e.*, Expansion Joints or welds not buried, or located in a manhole, tunnel, or vault).

Active Corrosion. Continuing corrosion which, unless controlled, could result in a condition that is detrimental to public safety.

Asbestos-containing Material ~~means friable.~~ Friable asbestos and any material containing 1 % or more asbestos by area as determined by a laboratory using USEPA United States Environmental Protection Agency-approved methods. This term includes but is not limited to sprayed-on and troweled-on materials applied to ceilings, walls, and ceilings, walls, and other surfaces, insulation on pipes, boilers, tanks, ducts, and other equipment, structural and non-structural members, tiles, shingles or asbestos-containing paper.

ASME B31.1. "Power Piping," American Society of Mechanical Engineers (ASME), Code for Pressure Piping, B31.1 (current or applicable version).

Blow-off Valve ~~means a.~~ A valve typically connected to the Main on one end and open to the atmosphere on the other end. Blow-off Valves are used to de-pressurize

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the steam Main during outage operations, as well as to drain Condensate from the Main during shutdown, outage and start-up operations. Blow-off Valves are typically closed in normal operating conditions. These valves are sometimes also termed open-end or free-blow valves.

By-pass Valve ~~means a.~~ A valve that is fitted with piping to enable steam flow around the Main Valve when the Main Valve is isolated. By-pass Valves are used upon re-energization of a section of the Main, and are sometimes termed warm-up or equalizing valves.

Condensate ~~means water.~~ Water that collects as steam, and when cooled, changes ~~state~~ to a liquid state. In normal operation, the Main or Service Piping will produce varying amounts of Condensate while in service, and provision for its removal is required (typically by Steam Traps).

Condition Assessment. A program that provides for the assessment and documentation of the condition of all Covered Piping Systems (CPS), pursuant to ASME B31.1, Chapter VII, Paragraph 140.

Covered Piping Systems (CPS). Accessible piping systems or components on which Condition Assessments are to be conducted in accordance with ASME B31.1.

Department ~~means the.~~ Department of Public Utilities, Commonwealth of Massachusetts.

Division. Pipeline Safety Division of the Department.

Emergency Event ~~means an unplanned event that requires immediate actions to safeguard~~ Leak. Any Leak or Vapor Condition that is immediately hazardous or a threat to public safety and, including but not limited to the following:

- (a) Any Leak or Vapor Condition on the bellows of an exposed Expansion Joint;
- (a)(b) Any Leak or Vapor Condition that could cause third-party property damage or personal injury;
- (c) Any Leak or Vapor Condition resulting from External Damage or other outside forces, including but not limited to fire, explosion, vandalism, or natural forces; or
- (d) Any Leak or Vapor Condition that, in the judgment of the operating personnel at the scene, is regarded as potentially hazardous.

Expansion Joints ~~means manufactured.~~ Manufactured fittings installed in Main or Service Piping to compensate, where necessary, for thermal expansion. Expansion

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Joints are typically either slip ~~joint~~joints or bellows ~~joint~~joints (internally or externally pressurized) ~~types~~).

External Damage. Damage to facilities caused by external forces including but not limited to third parties.

Incident. A condition or situation that:

- (a) Could lead to abnormal plant or system operations;
- (b) Jeopardizes key systems or components;
- (c) Compromises personnel safety; or
- (d) Could damage third-party property or impact the health and safety of the general public.

Integrity Management Plan (IM Plan). A written explanation of the mechanisms or procedures that a Steam Distribution Company uses to implement its SDIMP or IM Program to ensure compliance with 220 CMR 20.00.

Leak ~~means a.~~ A breach in the pressure boundary of the Main or Service Piping that allows the escape of steam from the system.

Main ~~means a steam distribution main including.~~ Includes the piping, Main Valves, Blow-off Valves, By-pass Valves, Expansion Joints, Steam Traps, equipment, and fittings for the delivery of steam from ~~the~~ Steam Distribution Company's steam production facility to the Steam Distribution Company's service area. Mains are external to the property line of the steam production facility, and are differentiated from Service Piping.

Main Valve ~~means a.~~ A valve located in the Main that is used for isolating a section of the Main.

Nonemergency Leak ~~means any.~~ Any Leak or Vapor Condition that is not immediately hazardous or a threat to public safety at the time of discovery and reasonably can be expected to remain nonhazardous and not a public safety threat.

Service Piping ~~means the.~~ The piping, valves, Steam Traps, equipment, and fittings for the delivery of steam originating from the Main to the thermal energy end-user (customer), terminating at the customer's property line.

Steam Distribution Company ~~means a.~~ A person, firm, partnership, association or private corporation organized or operating under the laws of the Commonwealth with the primary purpose of operating a plant, equipment or facilities for the manufacture, production, transmission, furnishing or distribution of steam to or for the public for

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compensation within the Commonwealth; provided, however, that Steam Distribution Company shall not include:

- (a) an entity producing or distributing steam exclusively on private property and solely for use by the entity or the entity's tenant, and not for distribution or sale; or
- (b) a company that produces and sells steam as a by-product of the production of electricity for sale in the wholesale electricity markets and does not own or operate pipelines off site of the generating facility for the distribution of steam.

Steam Distribution Integrity Management Program (SDIMP or IM Program). An overall approach by a Steam Distribution Company to ensure the integrity and condition of its steam distribution system through the development and implementation of Condition Assessment plans for Covered Piping Systems (CPS) as specified under ASME B31.1.

Steam Trap ~~means a.~~ A device fitted on the Main and Service Piping to allow the discharge of accumulated Condensate from an operating steam line. Steam Traps operate essentially as automated valves that are activated by one or more means to eject Condensate with minimal steam loss.

Vapor Condition ~~means the.~~ The presence of visible steam ~~and/or~~ water vapor in close proximity to buried Mains.

Water Intrusion ~~means water.~~ Water originating from external sources making physical contact with the Main ~~and/or~~ Service Piping. This contact can result in flash vapor that may be reported as a Vapor Condition.

20.03: Applications for Exceptions from Provisions of 220 CMR 20.00

Any Steam Distribution Company may make a written request to the Department for an exception to the provisions of 220 CMR 20.00, in whole or in part. The request shall justify why the exception should be granted and shall demonstrate why the exception does not derogate from the safety objectives of 220 CMR 20.00. The request shall include details on the need for the exception, specific information on the circumstances surrounding the exception, the provisions of the regulations from which exception is sought, and a description of any safety consequences that might result from the exception. Documentation in support of the request shall also be submitted.

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The Department may, after consideration and the payment of the appropriate fee, issue a written decision denying the exception or granting the exception as requested or as modified by the Department and subject to conditions. An exception may be granted or denied in writing by the Director of the Division, or by the Director's functional successor in the event of an internal reorganization of the Department. Any person aggrieved by a decision of the Director may appeal the decision to the Department. Any appeal shall be in writing and shall be made not later than ten business days following issuance of the written decision.

In an emergency, a verbal request for an exception may be granted by the Director or his functional equivalent, provided that the verbal request is subsequently confirmed in writing within seven days of the exception being granted.

~~20.03:~~ 20.04: Compliance with Standard Code

Following the effective date of 220 CMR 20.00 (August 17, 2012⁷), all new Main and Service Piping shall be designed, constructed, tested, operated and maintained, except as otherwise provided in 220 CMR 20.00, in accordance with "Power Piping, American Society of Mechanical Engineers (ASME), Code for Pressure Piping, B31.1-2010," or the most recent successor edition of ASME B31.1-2010ASME B31.1.

~~20.04:~~ 20.05: Notification of Construction

At least ten days prior to the start of construction, or reconstruction, of ~~any~~ 100 feet or more of ~~the~~ Main, each Steam Distribution Company shall file with the Department a letter of intent providing details of the proposed construction, except when an Emergency EventLeak makes such notice impracticable. When such notice is impracticable due to an Emergency EventLeak, such filing shall be made at the earliest practicable time following remediation of the Emergency EventLeak.

~~20.05:~~ 20.06: Operating and Maintenance Plan

- (1) Each Steam Distribution Company shall establish and file with the Department a detailed written operating and maintenance (O&M) plan that implements the provisions of 220 CMR ~~-20.00~~. Each Steam Distribution Company shall submit to the Department any revisions to the ~~operating and maintenance~~O&M plan within 30 days following the revisions' effective date.
- (2) The ~~operating and maintenance~~O&M plan shall include, at a minimum, the following:
 - (a) operating and maintenance procedures during normal operations and repairs;
 - (b) procedures for reporting, investigating, classifying, handling, and monitoring steam Leaks ~~and,~~ Vapor Conditions and External Damage;

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- (c) procedures to correct, within specified timeframes, deficiencies found during inspections, evaluations, and tests required by 220 CMR 20.00;
 - (d) procedures for continuing routine surveillance and inspections of the Main and Service Piping to identify and to take appropriate action concerning failures, leakage history, excessive Water Intrusion, manhole structural condition and other unusual operating and maintenance conditions;
 - (e) procedures for personnel who perform operation and maintenance activities (including all inspections, surveys, and condition assessments) to recognize and report any safety-related condition that could lead to a system or component failure, including procedures for providing a written safety-related condition report to the Department within five working days from the date of discovery of the safety-related condition;
 - ~~(e)(f)~~ a list of qualified persons who may approve the turn-on of any section of the Main and Service Piping; and
 - ~~(f)(g)~~ procedures to ensure that the turn-on of any section of the Main and Service Piping is accomplished only by persons specifically trained, qualified, and approved for such purpose.
- (3) Each Steam Distribution Company shall establish and maintain detailed, up-to-date and accurate geographical information system (GIS) maps ~~of its Mains, and up-to-date and accurate maps or~~ records of its Mains and Service Piping ~~to the extent necessary to administer its operating and maintenance plan.~~
- (4) Each Steam Distribution Company shall comply with its ~~operating and maintenance~~O&M plan. In order to encourage consistency and uniformity when performing O&M activities, company personnel shall maintain a copy of the O&M plan and procedures in the field where work is being performed or have access to an electronic copy.

~~20.06:—20.07:~~ Emergency Plan

- (1) Each Steam Distribution Company shall establish and file annually with the Department a detailed written emergency plan that implements procedures to minimize the hazards resulting from an Emergency ~~Event. These procedures~~ Leak or Incident. Each Steam Distribution Company shall address the following: comply with its emergency plan.
- ~~(a) — making safe any actual or potential hazard to life or third-party property; and~~

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~~(b) — safely restoring to service any of the Main or Service Piping following emergency shutdown or outage.~~

~~(2)~~ At a minimum, the emergency plan must ~~provide~~include the following:

~~(2) —~~procedures for the following:

- (a) receiving, identifying, and classifying notices of ~~incidents that require immediate response~~Emergency Leaks or Incidents;
- (b) procedures for establishing and maintaining adequate means of communication with fire, police, and other public safety officials;
- (c) procedures for establishing and maintaining continuous communication and coordination between field crews and dispatching personnel;
- (d) procedures for the availability of personnel, equipment, tools, and materials, as needed at the scene of an Emergency ~~Event~~Leak or Incident;
- (e) ~~actions~~procedures directed toward protecting human life and safety as the highest priority, with protection of property second in priority; ~~and~~
- (f) emergency Main and Service Piping shutdown procedures-;
- ~~(g) —~~Each Steam Distribution Company's procedures for making safe any actual or potential hazard to life or third-party property;
- ~~(h) —~~procedures for safely restoring to service any of the Main or Service Piping following emergency plan shall include shutdown or outage;
- ~~(i) —~~instructions to control and mitigate the release of Asbestos-containing Material or Asbestos-containing Material debris, resulting from the failure of any the Main or Service Piping.
- ~~(j) —~~procedures for analyzing each facility failure for the purpose of determining its cause and minimizing the possibility of a recurrence, including procedures for selecting samples of the failed facility or equipment for laboratory examination; and
- ~~(g)(k) —~~procedures for the Steam Distribution Company (or, at the Department's request, an independent consultant) to test or survey any equipment or systems as part of an investigation and analysis of a failure or Incident for the purpose of determining its cause and minimizing the possibility of a recurrence.

(3) Each Steam Distribution Company shall:

- (a) provide a copy of the latest edition of the emergency plan to supervisors who are responsible for emergency action; and
- (b) train the appropriate operating personnel to ensure that they are knowledgeable about and can comply with the emergency plan.

(4) No later than January 31st of each year, each Steam Distribution Company shall file with the Department, and with all municipalities within which its

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facilities are located, a list indicating the names and 24-hour contact information of its responsible officials who may be contacted in the event of an Emergency ~~Event~~Leak. Changes to this list within the year shall be reported to the Department and affected municipalities no later than 30 days after such changes.

20.08: Aging Report for Major Steam Components

- (1) Each Steam Distribution Company shall maintain an accurate steam system facilities Aging Report listing all major steam piping and components by period of installation, in a format to be determined by the Department. The Aging Report shall include but not be limited to Expansion Joints, Steam Traps, valves, guides, anchors, and supports, and shall identify the percentage, footage, or number of components for each installation period. Each Steam Distribution Company shall file its Aging Report with the Department every five years on January 1st, beginning with January 1, 2022.
- (2) Each Steam Distribution Company shall maintain a running list of the number of vault or manhole repairs performed each calendar year for the previous ten years. The Steam Distribution Company shall file this list with the Department annually on January 1st, beginning with January 1, 2022.

~~20.07:~~ 20.09: Customer Education and Information Program

- (1) Each Steam Distribution Company shall initiate and maintain on a continuing basis, a program for customer education and information designed to assist its customers, and appropriate government organizations, in recognizing steam emergency conditions and situations, and to provide them the means to notify the Steam Distribution Company of such situations.
- (2) No later than January 31st of each year, each Steam Distribution Company shall file a report with the Department describing the Steam Distribution Company's customer education and information program, including a detailed statement of the means of its implementation and samples of all descriptive literature and other educational aids. The report shall identify all changes from the prior year's program.

~~20.08:~~ 20.10: Employee Training

- (1) Each Steam Distribution Company shall ensure that the employees involved in the operation, maintenance, or testing of Mains and Service Piping satisfactorily complete training to ensure effective and safe implementation of the procedures required by 220 CMR 20.00. Supervisors shall be tested

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annually to determine proficiency and shall satisfactorily complete refresher training as testing results deem necessary.

- (2) Each Steam Distribution Company shall ensure that new employees receive basic classroom training prior to on-the-job training in field operations.
- (3) Each Steam Distribution Company shall maintain records of the training provided under 220 CMR 20.0810 including the names of the employees trained, courses provided, and the number of hours of training ~~consistent with 220 CMR 20.17.~~

~~20.09: 20.11:~~ Periodic Inspections

At a minimum, each Steam Distribution Company shall conduct the following periodic inspections:

- (1) Steam Traps. The Steam Distribution Company shall establish and maintain an active Steam Trap survey program for the regular systematic inspection, testing, repair or replacement of all Steam Traps, to ensure that they are working properly and not allowing steam to blow (pass) through. Each survey shall also include the inspection and replacement or remediation of associated trap piping assemblies (i.e., small bore pipe) that show signs of Active Corrosion during the survey.

All Steam Traps and trap piping assemblies shall be inspected seasonally for general condition and proper operation. At least four inspections shall be conducted in each calendar year- at intervals not exceeding three months.

Traps that fail inspection must be replaced or remediated upon discovery but no later than 30-days from discovery.

Corrosion under removable insulation on traps and trap assemblies shall be checked four times per year at intervals not exceeding three months.

- ~~(1)(2)~~ Blow-off Valves and By-pass Valves. Blow-off Valves and By-pass Valves shall be ~~checked~~inspected for operability immediately prior to closing each associated Main Valve during a scheduled shut down of a section of the Main and associated Service Piping. ~~Removal of~~ Condensate shall be removed from a shut-down section of the Main and/or associated Service Piping ~~must be accomplished~~ prior to re-opening Main Valves.

- ~~(2)(3)~~ Accessible Expansion Joints. Accessible Expansion Joints shall be inspected at least bi-annually, once in the summer and once in the winter every six months. The inspection shall include, as applicable, checks for leakage, proper alignment, and traverse measurement.

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- (4) Inaccessible Expansion Joints. Inaccessible Expansion Joints shall be surveyed every six months for any potential leakage using listening devices such as a geophones or other similar equipment.
- ~~(3)~~(5) Manholes. Manholes containing the MainMains and Service Piping shall be inspected for general conditions. Inspection of manhole general conditions shall include, including the following:
- (a) steam distribution equipment inside the manhole at least once each calendar year at intervals not exceeding 15 months;
 - (b) support systems inside manholes, such as anchors, guides, and supports, shall be checked for atmospheric corrosion at least once each calendar year at intervals not exceeding 15 months;
 - ~~(b)~~(c) surface temperature readings of manhole castings, covers and appurtenances that are located at or above grade and subject to contact with pedestrians, vehicles and other members of the public, at least once each calendar year at intervals not exceeding 15 months; and
 - ~~(e)~~(d) structural integrity at least once every five calendar years.
- (6) Upon the removal from service of any Expansion Joint or steel Main or Service Piping, the Steam Distribution Company shall inspect the item for internal corrosion and for external corrosion under insulation (CUI). A removed Expansion Joint shall include pipe coupons (short segments of pipes) at least 12 to 18" long. For removed Main or Service Piping, inspection of a pipe coupon (12" to 18" long) is sufficient. The Steam Distribution Company shall document and maintain records of these inspections to support future inspections of pipe remaining in service.

20.12: Condition Assessment and Steam Distribution IM Program (SDIMP)

- (1) Condition Assessment. Each Steam Distribution Company shall ~~maintain records of periodic inspections~~ conduct a Condition Assessment to support the SDIMP outlined below in Section 20.12(2).
- (a) The key elements and protocols associated with the Condition Assessment shall be consistent with the requirements of ASME B31.1, Chapter VII, Paragraph 140.
 - (b) The overall system-wide Condition Assessments shall be performed at periodic intervals as determined by an engineering evaluation or at least once every ten years.
 - (c) Each Steam Distribution Company shall establish a tracking program or application to provide for the assessment and documentation of the condition (findings) discovered during the Condition Assessment.

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- (2) Steam Distribution IM Program (SDIMP). Each Steam Distribution Company shall develop and implement a Steam Distribution IM Program (SDIMP) that includes a written IM Plan. The IM Plan must contain procedures for developing and implementing the following elements:
- (a) Knowledge. The Steam Distribution Company must demonstrate an understanding of its steam distribution system developed from reasonably available information.
1. Identify the characteristics of the Main and Service Piping's design and operations and the environmental factors that are necessary to assess the applicable threats and risks to its Main and Service Piping.
 2. Consider the information gained from past design, operations, and maintenance.
 3. Identify additional information needed and provide a plan for gaining that information over time through normal activities conducted on the Main and Service Piping (for example, design, construction, operations or maintenance activities).
 4. Develop and implement a process by which the SDIMP will be reviewed periodically and refined and improved as needed.
 5. Provide for the capture and retention of data on any new Main or Service Piping installed. The data must include, at a minimum, the location where the new Main or Service Piping is installed and the material of which it is constructed.
- (b) Identify threats. The Steam Distribution Company must consider the following categories of threats to its Main and Service Piping: corrosion, natural forces, excavation damage, other outside force damage, material or welds, equipment failure, incorrect operations, and other concerns that could threaten the integrity of its Main and Service Piping. The Steam Distribution Company must consider reasonably available information to identify existing and potential threats. Sources of data may include, but are not limited to, Incident and Leak history, corrosion control records, survey records, maintenance history, excavation and property damage experience.
- (c) Evaluate risk. The Steam Distribution Company must evaluate the risks associated with its distribution Main and Service Piping. In this evaluation, the Steam Distribution Company must determine the relative importance of each threat and the risks posed to its Main and Service Piping.
- (d) Identify and implement measures to address risks. The Steam Distribution Company must determine and implement measures designed to reduce the risks from failure of its Main and Service Piping. These measures must include an effective steam leak management program for Emergency and Nonemergency Leaks. The

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Steam Distribution Company shall continuously implement measures to address and mitigate the risks to customers and the public at large (within its service areas).

- (e) Measure performance, monitor results, and evaluate effectiveness. The Steam Distribution Company must develop and monitor performance measures from an established baseline to evaluate the effectiveness of its SDIMP. The Steam Distribution Company must consider the results of its performance monitoring in periodically re-evaluating the threats and risks. These performance measures must include the following:
1. Number of Emergency Leaks either eliminated or repaired (or total number if all Emergency Leaks are repaired when found) categorized by cause;
 2. Number of Nonemergency Leaks;
 3. Leaks per mile of pipe;
 4. Number of excavation and property damages;
 5. Total number of leaks either eliminated or repaired, categorized by cause; and
 6. Any additional measures the Steam Distribution Company determines are needed to evaluate the effectiveness of the SDIMP in controlling each identified threat.
- (f) Periodic Evaluation and Improvement. The Steam Distribution Company must re-evaluate threats and risks on its entire distribution system and consider the relevance of threats in one location to other areas. The Steam Distribution Company must determine the appropriate period for conducting complete program evaluations based on the complexity of its system and changes in factors affecting the risk of failure. The Steam Distribution Company must conduct a complete program re-evaluation at least once every ten years. The Steam Distribution Company must consider the results of the performance monitoring in these evaluations.
- ~~(d)~~(g) Report results. The Steam Distribution Company must report the measures listed in 220-CMR 20.17.12(2)(e) as part of the annual safety report required by 220 CMR 20.16(4).

~~20.10:–20.13:~~ Welding - Qualification and Nondestructive Testing

- (1) All welding must be performed by qualified welders employing qualified welding procedures, in accordance with the American Welding Society Standard Welding Procedure Specifications.
- (2) Notwithstanding the pressure and temperature limitations contained in ASME B31.1-~~2010~~, welds subjected to temperatures over 350°F (175°C) on pipe over

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six inches in diameter shall be subject to nondestructive testing by radiographic inspection in accordance with 220 CMR 20.1013(3) and (4).

- (3) All underground buried field welds greater than $2\frac{1}{2}$ 1/2 inches in diameter in new Main and Service Piping installations and all prefabricated shop welds shall be nondestructively tested prior to being placed in service.
- (4) Each Steam Distribution Company shall establish a program of random, unannounced, nondestructive testing for new accessible field welds made on existing Main and Service Piping, to assess the quality of welding and the work of each welder. The required minimum testing rate shall be 10% of all welds made during a calendar month. If 10% or more of the welds tested in a calendar month are found to be unacceptable, the test rate shall increase by 5% for the ensuing calendar month. If fewer than 10% of the welds are found to be unacceptable in a calendar month where the required test rate was greater than 10%, the test rate may be decreased by 5% for the ensuing calendar month.

~~20.11; 20.14:~~ Leaks ~~and~~, Vapor Conditions ~~and~~ External Damage

- (1) Each Steam Distribution Company shall be responsible for the investigation, prioritization, and repair of each Leak ~~or~~, Vapor Condition or External Damage, as applicable, found on its system.
- (2) Each Steam Distribution Company shall respond promptly to any notification of a Leak, Vapor Condition or ~~any notification of damage to facilities caused by contractors or other third parties. Nonemergency Leaks and damage shall be repaired within nine months from the date of discovery~~ External Damage.
- (3) Nonemergency Leaks or Vapor Conditions shall be repaired within four months from the date of discovery.
- ~~(3)~~(4) Each Steam Distribution Company shall respond immediately to ~~emergency~~ Emergency Leaks or External Damage to protect life and third-party property, and must work continuously until repairs are completed, or until the condition is no longer hazardous. ~~Emergency Leaks include, but are not limited to:~~
 - ~~(a) any Leak on the bellows of an exposed Expansion Joint;~~
 - ~~(b) any Leak that could cause third party property damage or personal injury;~~
 - ~~(c) any Leak or Vapor Condition that, in the judgment of the operating personnel at the scene, is regarded as potentially hazardous; or~~
 - ~~(d) any Leak resulting from damage by contractors or other outside forces.~~

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- ~~(4)(5)~~ Each Steam Distribution Company shall create a steam Leak/Vapor Condition/External Damage record, identified by number to record the entire history of a Leak/Vapor Condition/External Damage on the Main and Service Piping from the time of discovery through repair, as applicable. The record shall contain information as to the location and apparent cause of the event, and the nature of the repair. ~~The records shall be maintained consistent with the requirements of 220 CMR 20.17.~~

~~20.12:–20.15:~~ Logging and Analysis of Steam ~~Emergency Event Report~~Incidents

- (1) Each ~~Seam~~Steam Distribution Company shall record each report of an ~~Emergency Event~~Incident received on a service record number.
- (2) Each Steam Distribution Company shall keep and maintain a daily log that includes the recording of the receipt and handling of each ~~Emergency Event~~reportIncident containing the following information:
 - (a) cross reference to the related service record number;
 - (b) location of ~~emergency~~Incident;
 - (c) time report first received;
 - (d) description as to type of ~~emergency~~Incident;
 - (e) time personnel first dispatched to location;
 - (f) time of arrival of personnel at location;
 - (g) times of dispatch and arrival of any additional personnel called to the _____location; and
 - (h) time when the ~~Emergency Event~~Incident is cleared.
- (3) ~~Each~~ Steam Distribution Company shall conduct an investigation, including a “lessons learned” or debriefing session involving affected personnel, following resolution of ~~an Emergency Event~~each Incident to review activities to determine whether the procedures were effectively followed in each ~~emergency~~case, the causes of the failure, and actions needed to minimize the possibility of a recurrence.

~~20.13:–20.16:~~ Reports of Incidents and Interruptions

- (1) ~~Each Steam Distribution Company shall, at~~At the earliest practicable moment following discovery, ~~each Steam Distribution Company shall~~ report to the Department ~~by telephone, through the Department’s emergency notification system, all incidents~~Incidents involving the Main ~~and/or~~ Service Piping that include any of the following events:
 - (a) injury requiring inpatient hospitalization or death to any persons;
 - (b) damage to third-party property;
 - (c) airborne release of Asbestos-containing Material; or

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- (d) anything significant in the judgment of the Steam Distribution Company.
- (2) ~~Each Steam Distribution Company shall, at~~At the earliest practicable moment following discovery, each Steam Distribution Company shall report to the Department by telephone, through the Department's emergency notification system, any unscheduled interruption of service affecting two or more customers, or any other interruption deemed reasonably significant, provided that nothing in 220 CMR 20.00 shall require a Steam Distribution Company to report service interruptions resulting primarily from a loss of steam production output.
- ~~(3) — All such incidents and service interruptions~~Within 30 days following discovery, each Steam Distribution Company shall submit to the Department a written report of each Incident that meets the reporting requirements in 220- ~~CMR 20.13(1) and (2) shall be reported to the Department by telephone through the Department's emergency notification system.~~
- ~~(4)(3)~~ A written report of each incident in which steam distribution facilities were involved pursuant to 220 CMR 20.13(1), ~~shall be submitted to the Department within 30 days following discovery.~~ The report shall set forth a chronological sequence of events including a detailed description of the:
 - ~~(a) — incident or interruption;~~
 - (a) Incident;
 - (b) response, action, and investigation by the Steam Distribution Company; and
 - (c) results and findings of the investigations to date, including the results of ~~the investigation required by 220 CMR 20.12(3).~~
- ~~(5)(4)~~ -No later than March 1st of each year, each Steam Distribution Company shall file its annual report on safety-related matters with the Department. The report shall include but not be limited to:
 - (a) the dates, locations, duration, and causes of all Leak ~~incidents~~Incidents;
 - (b) the Main and Service Piping ~~accidents~~Incidents and service outages or interruptions;
 - (c) the number of injuries that required inpatient hospitalization;
 - (d) the number of fatalities;
 - (e) the approximate cost of third-party property damage;
 - (f) the time elapsed between the ~~incident~~Incident and the return to service following ~~a repair~~; and
 - (g) mitigation of any release of asbestos-containing material.

20.14: Facility Failure Investigation

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~~(1) — Each Steam Distribution Company shall establish procedures to analyze each Leak incident for the purpose of determining its cause and to minimize the possibility of a recurrence. This shall include a procedure to select samples of the failed facility or equipment for laboratory examination when necessary.~~

~~(2) — The procedures shall also require the Steam Distribution Company (or, at the Department's request, an independent consultant) to test or survey any equipment or systems deemed reasonably necessary by Department staff for the investigation and analysis of any failure or accident to determine its cause and to minimize the possibility of a recurrence.~~

20.17: Continuous System Efficiency and Public Safety Surveys

(1) Continuous System Efficiency Survey. Each Steam Distribution Company shall conduct an efficiency survey of its steam distribution system and find ways to promote continuous system improvements. Each efficiency survey shall be completed at least once every ten years and filed with the Department no later than January 31st of the year following its completion.

(2) Public Safety Survey. Each Steam Distribution Company shall conduct a public safety survey of its steam distribution system at least once every ten years and filed with the Department no later than January 31st of the year following its completion. Moreover, the Department may request that each Steam Distribution Company conduct a safety survey prior to the ten-year due date or as deemed warranted in the interest of public safety.

(3) The Steam Distribution Company may provide the efficiency and public safety survey findings in a single report to the Department or may report the findings of each survey separately.

~~20.15:—20.18:~~ Corporate Filings

(1) Each Steam Distribution Company shall file with the Department a certified copy of its certificate of incorporation and bylaws, and any amendments, modifications, or revisions ~~to the same within six months of August 17, 2012~~thereto within six months of August 17, 2012, or within one month of taking ownership of the steam distribution assets from a prior entity. Thereafter, each Steam Distribution Company shall file with the Department any updates or changes to its certificate of incorporation or bylaws within one month following such change.

(2) By March 31st each year, each Steam Distribution Company shall report to the Department its intrastate operating revenues for the previous calendar year

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derived from the manufacture, production, transmission, furnishing, or distribution of steam to or for the public.

~~20.16:~~ 20.19: Department Examinations and Investigations; Fines

- (1) The Department may conduct announced or unannounced examinations and investigations into a Steam Distribution Company's safety performance, including compliance with 220 CMR 20.00. These may include entry into the offices and other property of the Steam Distribution Company during normal business hours.
- (2) If after examination or investigation, the Department ~~finds a violation of 220 CMR 20.00, the Department may levy fines against~~ has reason to believe that a Steam Distribution Company ~~for failure~~has failed to comply with M.G.L. c. 164B or 220 CMR 20.00, the Department may commence an enforcement proceeding against the company, conducted pursuant to 220 ~~2069.00, and may levy fines against the company.~~
- (3) In determining the appropriateness of any fine, the Department shall consider the seriousness of the violation and the good faith compliance efforts of the Steam Distribution Company.

~~20.17:~~ 20.20: Records

- (1) Each Steam Distribution Company shall maintain records documenting all ~~inspections, maintenance, tests, and training, investigation and analyses of Emergency Events and incidents and interruptions required by~~ Employee Training, Periodic Inspections, Welding - Qualification and Nondestructive Testing, Leaks/Vapor Conditions/External Damage, Emergency Leaks, Incidents and Interruptions, Facility Failures, maintenance, tests, investigations, surveys and analyses demonstrating compliance with all applicable provisions of 220 CMR 20.00.
- (2) ~~The~~Except as specified in 220 CMR 20.20(3) and (4), the minimum period of retention of records required by 220 CMR 20.00 shall be ~~threeten~~ ten years.
- (3) Records related to corrosion shall be maintained for the life of the facility.
- (4) Records related to Condition Assessments shall be maintained for the life of the facility.

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~~(3)~~(5) All records or copies thereof, shall be kept on file at Steam Distribution Company offices within the Commonwealth, and shall be readily accessible upon request to the staff of the Department.

20.18: Miscellaneous

~~—The Department may grant,~~

(6) Each Steam Distribution Company shall use an electronic records management system that will allow for good cause shown, readily available and not contrary to statute, an exception from any provision of 220 CMR 20.00. — readily accessible records. The system software should be updated/upgraded as new versions become available.

REGULATORY AUTHORITY

220 CMR 20.00: M.G.L. c. 164B, § 1.